

GABRIEL GIRALDO

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SUMMARY

- Performance-driven, self-motivated engineer with a combination of technical, analytic, and presentation skills.
- Articulate communicator, establishing connections between individuals of all ages, backgrounds, institutions, and industries. Bilingual, speaking both fluent Spanish and English.
- Fast learner, capable of picking up new technical skills quickly. Able to effectively prioritize and multi-task in order to meet deadlines. Known to go above and beyond job responsibilities to further goals.
- Willing to relocate, and seeking full time employment.

EDUCATION

Rutgers University, New Brunswick, NJ

- M.E. in **Mechanical Engineering** – May 2013
- GPA: 3.672

Rutgers University, New Brunswick, NJ

- Bachelor of Science in **Applied Physics** (2011)
- GPA: 3.06

WORK HISTORY

Rutgers University Dept. of Mechanical & Aerospace Engineering, Piscataway, NJ

Graduate Research Assistant – Advisor Dr. Jerry Shan

(Jan. 2012 – Current)

Developed processes for creating bulk quantities of carbon nanotube laden membranes using various composite materials and polymers (aqueous & non-aqueous) via electric field alignment, electrophoretic deposition and UV curing, followed by subsequent procedures to characterize them.

- Characterized and analyzed samples via Polarimetry, FESEM & TEM microscopy, FTIR spectroscopy, Zeta Potential measurements, UV-Vis-NIR Spectroscopy, and Raman Spectroscopy.
- Implemented chemical functionalization of nanotubes to aid in successful sample dispersion, particle exfoliation, and solution stability.
- Studied electric field behavior of nanotubes with regard to: solubility of nanoparticles in various solvents; alignment of particles under electric field; effect of concentration of particles and field strength on processes; and electrophoretic or dielectrophoretic motion of particles.
- Collaborated with other groups from outside institutions such as Lawrence Livermore National Laboratories, University of Massachusetts at Amherst, and Massachusetts Institute of Technology to discuss progress and obtain feedback.
- Wrote and submitted detailed quarterly reports delineating technical objectives reached, experimental methods, and plans for future work to help reach other long-term technical goals. Created presentations to share progress with other team members via teleconference.

Undergraduate Research Assistant – Advisor Dr. Jerry Shan

(Jun. 2009 – Sept. 2011)

Developed skills and technical knowledge necessary for the work mentioned above. Conducted literature review of current knowledge in the scientific area as well as up to date experimental techniques.

- Completed training courses for use of specialized equipment, such as SEM.
- Performed preliminary experiments to provide the basis for the work mentioned above.
- Continued this work towards the completion of a Master's of Engineering degree.

ENGINEERING SOFTWARE PROFICIENCIES

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| • MATLAB | • Word, Excel, Power Point | • Autodesk Inventor |
| • LabVIEW | • COMSOL | • SolidWorks |

OTHER EXPERIENCE & HONORS

- Member of the Rutgers EOF (Jun. 2012 – Aug. 2012) as a tutor helping students with writing, calculus, and physics.
- Presented poster at *Posters on the Hill* an event held by the Council on Undergraduate Research in Washington. (April 2011)
- Honored by Congressman Steve Rothman (D-NJ 9th District) at the *Posters on the Hill* event.
- Presented research at the *Aresty Undergraduate Research Symposium* at Rutgers University. (April 2010)
- Member of the Rutgers Telefund (Sept. 2009 – Dec. 2009) as a student ambassador, reaching out to alumni, parents, and friends of Rutgers to raise funds and create awareness of campus events and initiatives.
- Course work available at linkedin profile at <http://www.linkedin.com/in/ggiraldo>